

GT16G Series

Connector for Automotive Antenna Supporting 6GHz



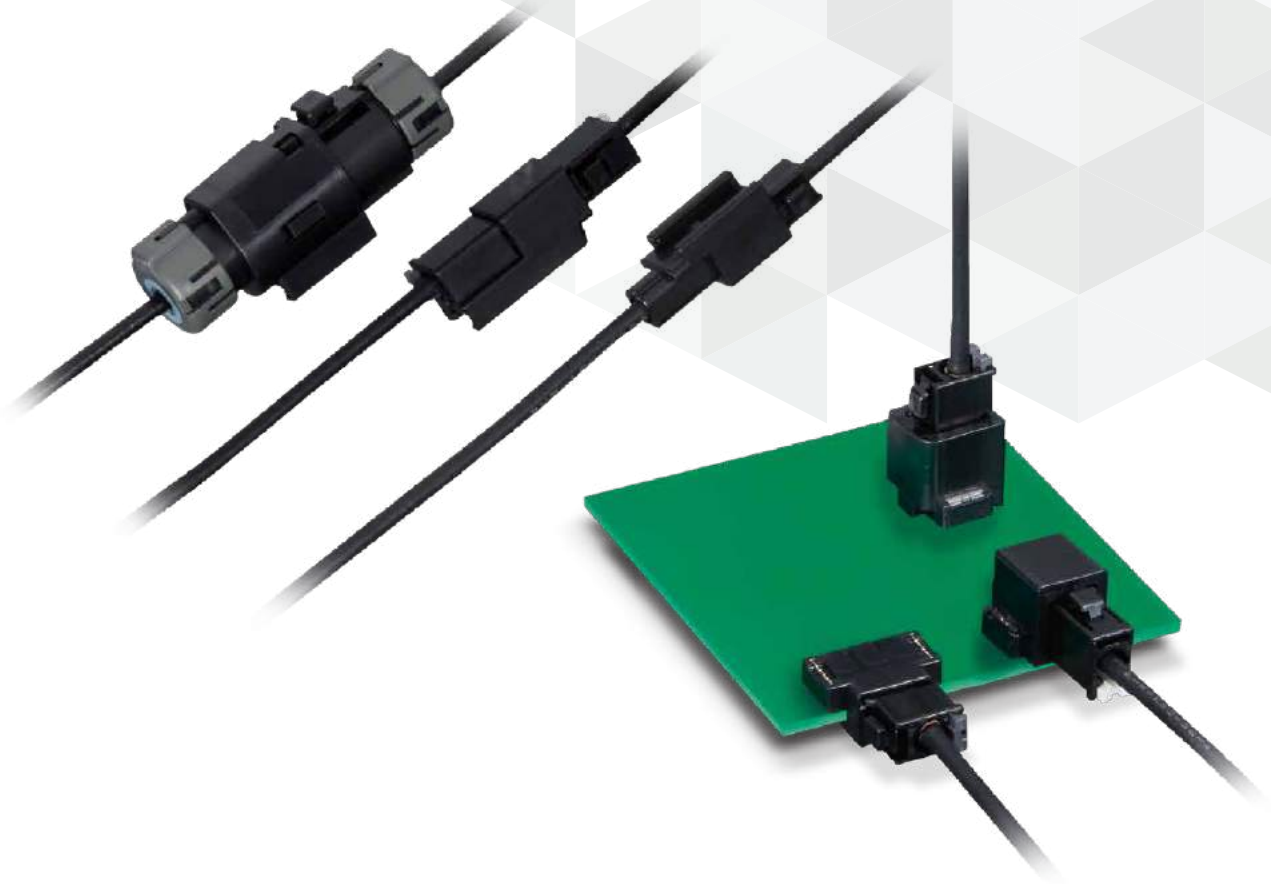
6 GHz



Wide Variation



Waterproof



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Features

1. Superior High Frequency Performance

V.S.W.R. is 1.5 or less at 0 to 6GHz.

2. Meets stringent testing standards for a wide range of automotive applications.

3. Robust lock design provides a clear tactile click

Lock strength : 98N Min.

4. Wide Product Variation

Applications

Automotive WiFi/Bluetooth, V2X, DSRC, etc.

Product Specifications

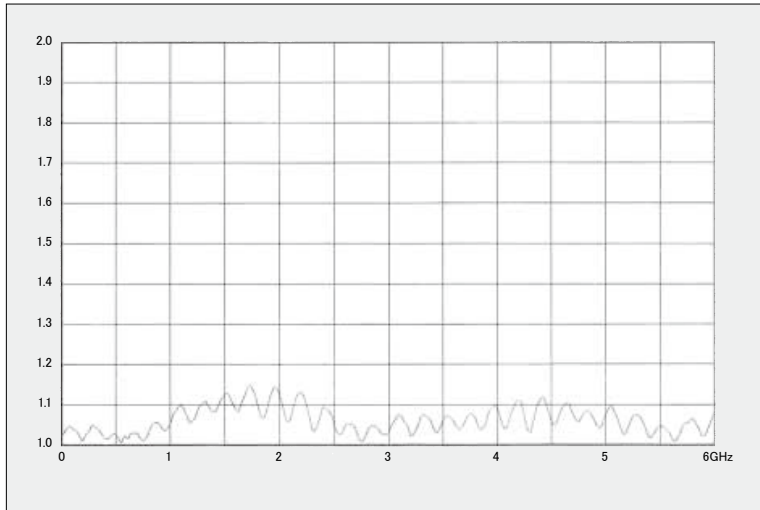
| | | | |
|---------------|---------|------------------------------|---------------|
| Rated Current | 1 A | Operating Temperature (Note) | -40 to +105°C |
| Rated Voltage | 250V AC | | |

| Item | Specifications | Conditions |
|-----------------------|--|-----------------------------------|
| Contact Resistance | Center : 30m Ω Max. Outer : 60m Ω Max. | Measured at 1A DC |
| Insulation Resistance | 100M Ω Min. | Measured at 500V DC |
| Withstanding Voltage | No insulation breakdown | 650V AC for 1 min. |
| Mating Durability | Contact Resistance : Center : 60m Ω Max. Outer : 120m Ω Max. | 30 times insertion and extraction |

Note : Includes temperature rise due to current flow.

High Frequency Characteristics (V.S.W.R.)

TEST DATA (Using 1.5D-2W cable)



Note : Typical data using fully assembled and connected GT16G-1P-H and the GT16G-1S-HU.

Mating Combinations

| Plug | | Receptacle, In-line Jack | |
|------------------|---------------------------------|--------------------------|--------------------------------------|
| Without Retainer | GT16GM-1S-ASSY | Top-mount / SMT | GT16GMP-1P-H(55) |
| | | Mid-mount / SMT | GT16GM-1P-H(55) |
| | | In-line | GT16GM-1P-ASSY |
| | | In-line / Bracket type | GT16GMN-1PP-ASSY |
| With Retainer | GT16G-1S-ASSY GT16GT-1S-ASSY | Top-mount / SMT | GT16GD-1P-H(55) GT16GT-1P-H(55) |
| | | Top-mount / SMT+THR | GT16GH-1P-H |
| | | Mid-mount / SMT+THR | GT16GL-1P-H(55)D GT16GRL-1P-H(55) |
| | | Straight / THR | GT16GH-1P-DSA |
| | | In-line / Bracket type | GT16GT-1PP-ASSY |
| Waterproof | GT16GW-1S-ASSY | Waterproof / In-line | GT16GW-1P-ASSY |

THR : Through Hole Reflow

Plug (Without Retainer)

The product consists of six parts.

(Housing, Insulation Case, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

GT16GM-1S-ASSY



● Housing, Insulation Case

| Part | Part No. | HRS No. | Material | Color | Purchase Unit |
|-----------------|--------------|------------------|----------|---------|------------------|
| Housing | GT16GM-1S-HU | CL0766-0033-9-00 | PBT | Black | 100pcs per bag |
| Insulation Case | GT16G-SC | CL0766-0023-5-00 | | Natural | 1,000pcs per bag |

Note : Use two insulation cases per cable assembly.

● Center Terminal, Outer Terminal

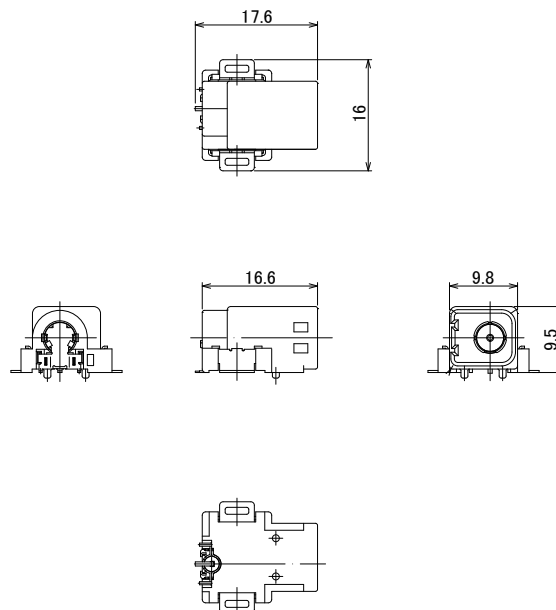
| Part | Part No. | HRS No. | Material / Finish | Applicable Cable | Purchase Unit |
|-----------------|-------------------|------------------|----------------------------------|-----------------------|-----------------------|
| Center Terminal | GT16G-2428SCF | CL0766-0022-2-00 | Phosphor Bronze / Tin Plating | 24 to 28 AWG | 10,000pcs per reel |
| Outer Terminal | GT16GM-/1.6-2.9SC | CL0766-0025-0-00 | | 1.5D-2W equivalent | 100pcs per bag |

● Terminal Ferrule, Outer Ferrule

| Part | Part No. | HRS No. | Material / Finish | Purchase Unit |
|------------------|---------------|------------------|----------------------------------|------------------|
| Terminal Ferrule | GT16G-FR | CL0766-0028-9-00 | Phosphor Bronze / Tin Plating | 1,000pcs per bag |
| Outer Ferrule | GT16G-1.5DHQS | CL0766-0027-6-00 | | 500pcs per bag |

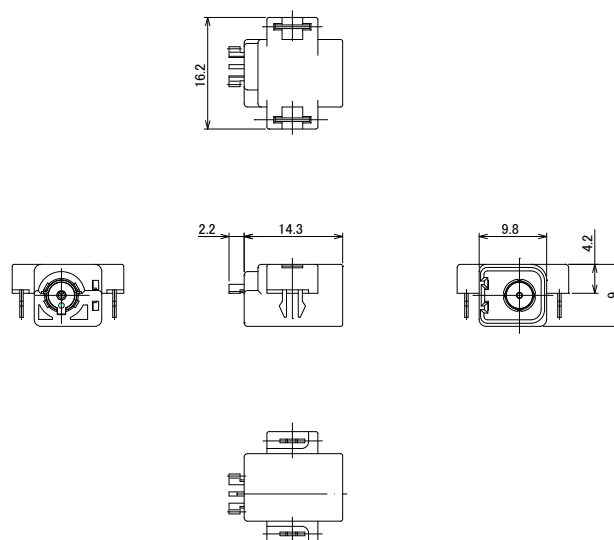
Receptacle

Top-mount / SMT



| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|------------------|------------------|--|-----------------|
| GT16GMP-1P-H(55) | CL0766-0052-3-55 | Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating | 200pcs per reel |

Mid-mount / SMT



| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|-----------------|------------------|--|----------------|
| GT16GM-1P-H(55) | CL0766-0032-6-55 | Housing : PBT / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PBT / Natural Retention Tab : Phosphor Bronze / Tin Plating | 60pcs per tray |

Note : The retention tabs are soldered manually.

In-line Jack (Without Retainer)

The product consists of six parts.

(Housing, Insulation Case, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

GT16GM-1P-ASSY



GT16GMN-1PP-ASSY



● Housing, Insulation Case

| Part | Part No. | HRS No. | Material | Color | Purchase Unit |
|-----------------|----------------|------------------|----------|---------|----------------|
| Housing | GT16GM-1P-HU | CL0766-0050-8-00 | PBT | Black | 100pcs per bag |
| | GT16GMN-1PP-HU | CL0766-0051-0-00 | | | |
| Insulation Case | GT16G-PC | CL0766-0047-3-00 | | Natural | |

Note : Use two insulation cases per cable assembly.

● Center Terminal, Outer Terminal

| Part | Part No. | HRS No. | Material / Finish | Applicable Cable | Purchase Unit |
|-----------------|------------------|------------------|-------------------------------|--------------------|--------------------|
| Center Terminal | GT16G-2428PCF | CL0766-0046-0-00 | Brass / Tin Plating | 24 to 28 AWG | 10,000pcs per reel |
| Outer Terminal | GT16G-/1.6-2.9PC | CL0766-0048-6-00 | Phosphor Bronze / Tin Plating | 1.5D-2W equivalent | 100pcs per bag |

● Terminal Ferrule, Outer Ferrule

| Part | Part No. | HRS No. | Material / Finish | Purchase Unit |
|------------------|---------------|------------------|-------------------------------|------------------|
| Terminal Ferrule | GT16G-FR | CL0766-0028-9-00 | Phosphor Bronze / Tin Plating | 1,000pcs per bag |
| Outer Ferrule | GT16G-1.5DHQS | CL0766-0027-6-00 | | 500pcs per bag |

Plug (With Retainer)

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

GT16G-1S-ASSY



● Housing, Insulation Case, Retainer

| Part | Part No. | HRS No. | Material | Color | Purchase Unit |
|-----------------|-----------------|------------------|----------|------------|------------------|
| Housing | GT16G-1S-HU | CL0766-0026-3-00 | PBT | Light Gray | 100pcs per bag |
| | GT16G-1S-HU(24) | CL0766-0026-3-24 | | Black | |
| Insulation Case | GT16G-SC | CL0766-0023-5-00 | | Natural | 1,000pcs per bag |
| Retainer | GT16C-1P/S-R | CL0766-0011-6-00 | | Dark Gray | 100pcs per bag |

Note : Use two insulation cases per cable assembly.

● Center Terminal, Outer Terminal

| Part | Part No. | HRS No. | Material / Finish | Applicable Cable | Purchase Unit |
|-----------------|------------------|------------------|----------------------------------|-----------------------|-----------------------|
| Center Terminal | GT16G-2428SCF | CL0766-0022-2-00 | Phosphor Bronze / Tin Plating | 24 to 28 AWG | 10,000pcs per reel |
| Outer Terminal | GT16G-/1.6-2.9SC | CL0766-0024-8-00 | | 1.5D-2W equivalent | 100pcs per bag |

● Terminal Ferrule, Outer Ferrule

| Part | Part No. | HRS No. | Material / Finish | Purchase Unit |
|------------------|---------------|------------------|----------------------------------|------------------|
| Terminal Ferrule | GT16G-FR | CL0766-0028-9-00 | Phosphor Bronze / Tin Plating | 1,000pcs per bag |
| Outer Ferrule | GT16G-1.5DHQS | CL0766-0027-6-00 | | 500pcs per bag |

Plug (With Retainer)

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

GT16GT-1S-ASSY



● Housing, Insulation Case, Retainer

| Part | Part No. | HRS No. | Material | Color | Purchase Unit |
|-----------------|--------------|------------------|----------|---------|------------------|
| Housing | GT16GT-1S-HU | CL0766-0098-4-00 | PBT | Black | 100pcs per bag |
| Insulation Case | GT16G-SC | CL0766-0023-5-00 | | Natural | 1,000pcs per bag |
| Retainer | GT16GT-1S-R | CL0766-0099-7-00 | | Natural | 100pcs per bag |

Note : Use two insulation cases per cable assembly.

● Center Terminal, Outer Terminal

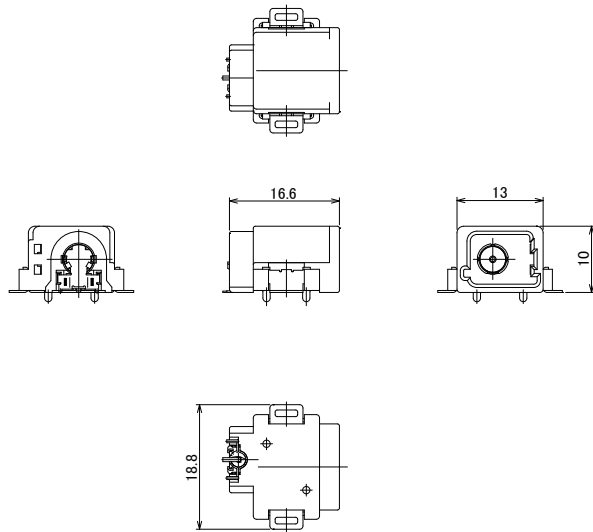
| Part | Part No. | HRS No. | Material / Finish | Applicable Cable | Purchase Unit |
|-----------------|------------------|------------------|----------------------------------|-----------------------|-----------------------|
| Center Terminal | GT16G-2428SCF | CL0766-0022-2-00 | Phosphor Bronze / Tin Plating | 24 to 28 AWG | 10,000pcs per reel |
| Outer Terminal | GT16G-/1.6-2.9SC | CL0766-0024-8-00 | | 1.5D-2W equivalent | 100pcs per bag |

● Terminal Ferrule, Outer Ferrule

| Part | Part No. | HRS No. | Material / Finish | Purchase Unit |
|------------------|---------------|------------------|----------------------------------|------------------|
| Terminal Ferrule | GT16G-FR | CL0766-0028-9-00 | Phosphor Bronze / Tin Plating | 1,000pcs per bag |
| Outer Ferrule | GT16G-1.5DHQS | CL0766-0027-6-00 | | 500pcs per bag |

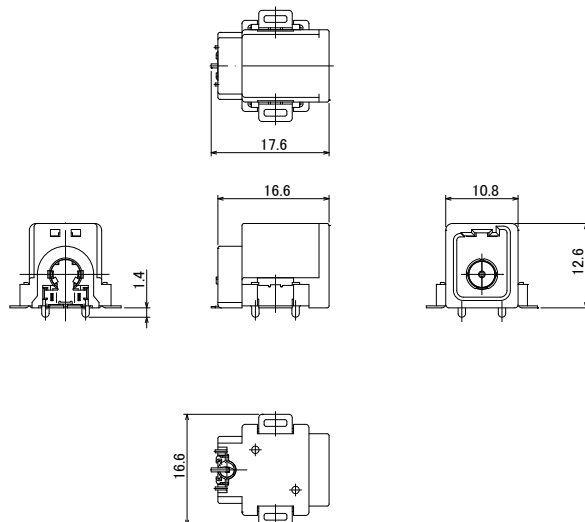
Receptacle

Top-mount / SMT



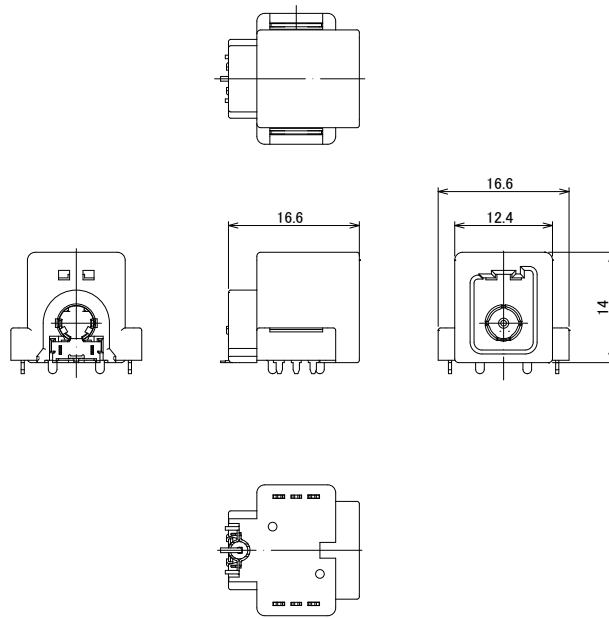
| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|-----------------|------------------|--|-----------------|
| GT16GD-1P-H(55) | CL0766-0044-5-55 | Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating | 200pcs per reel |

Top-mount / SMT



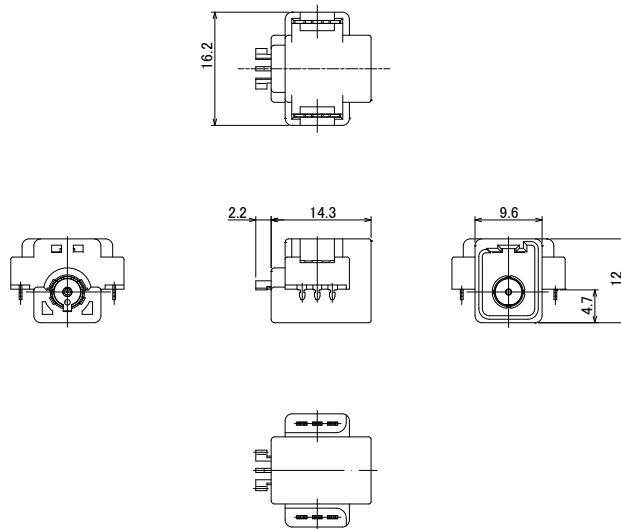
| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|-----------------|------------------|--|-----------------|
| GT16GT-1P-H(55) | CL0766-0104-5-55 | Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating | 200pcs per reel |

Top-mount / SMT+THR (Through Hole Reflow)



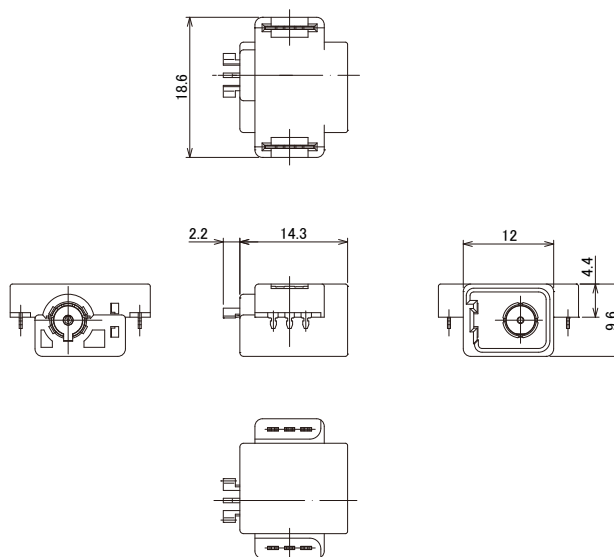
| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|-------------|------------------|--|-----------------|
| GT16GH-1P-H | CL0766-0118-0-00 | Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating | 200pcs per reel |

Mid-mount / SMT+THR (Through Hole Reflow)



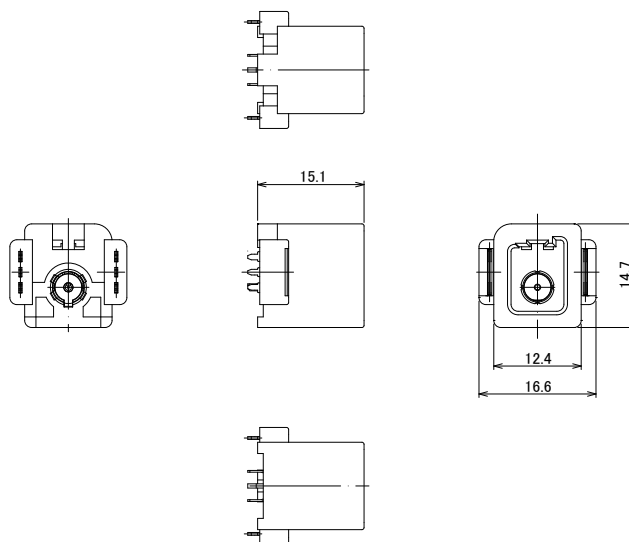
| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|------------------|------------------|--|-----------------|
| GT16GL-1P-H(55)D | CL0766-0103-2-55 | Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PPS / Natural Retention Tab : Brass / Tin Plating | 200pcs per reel |

Mid-mount / SMT+THR (Through Hole Reflow)



| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|------------------|------------------|--|-----------------|
| GT16GRL-1P-H(55) | CL0766-0101-7-55 | Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PPS / Natural Retention Tab : Brass / Tin Plating | 200pcs per reel |

Straight / THR (Through Hole Reflow)



| Part No. | HRS No. | Material / Finish or Color | Purchase Unit |
|---------------|------------------|--|----------------|
| GT16GH-1P-DSA | CL0766-0112-3-00 | Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PPS / Natural Retention Tab : Brass / Tin Plating | 60pcs per tray |

In-line Jack (With Retainer)

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

GT16GT-1PP-ASSY



● Housing, Insulation Case, Retainer

| Part | Part No. | HRS No. | Material | Color | Purchase Unit |
|-----------------|---------------|------------------|----------|-----------|----------------|
| Housing | GT16GT-1PP-HU | CL0766-0049-9-00 | PBT | Black | 100pcs per bag |
| Insulation Case | GT16G-PC | CL0766-0047-3-00 | | Natural | |
| Retainer | GT16C-1P/S-R | CL0766-0011-6-00 | | Dark Gray | |

Note : Use two insulation cases per cable assembly.

● Center Terminal, Outer Terminal

| Part | Part No. | HRS No. | Material / Finish | Applicable Cable | Purchase Unit |
|-----------------|------------------|------------------|-------------------------------|--------------------|--------------------|
| Center Terminal | GT16G-2428PCF | CL0766-0046-0-00 | Brass / Tin Plating | 24 to 28 AWG | 10,000pcs per reel |
| Outer Terminal | GT16G-/1.6-2.9PC | CL0766-0048-6-00 | Phosphor Bronze / Tin Plating | 1.5D-2W equivalent | 100pcs per bag |

● Terminal Ferrule, Outer Ferrule

| Part | Part No. | HRS No. | Material / Finish | Purchase Unit |
|------------------|---------------|------------------|-------------------------------|------------------|
| Terminal Ferrule | GT16G-FR | CL0766-0028-9-00 | Phosphor Bronze / Tin Plating | 1,000pcs per bag |
| Outer Ferrule | GT16G-1.5DHQS | CL0766-0027-6-00 | | 500pcs per bag |

Waterproof Plug

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

GT16GW-1S-ASSY



● Housing, Insulation Case, Retainer

| Part | Part No. | HRS No. | Material | Color | Purchase Unit |
|-----------------|--------------|------------------|-----------------------|------------------------|------------------|
| Housing | GT16GW-1S-HU | CL0766-0076-1-00 | PBT / Silicone Rubber | Black / White | 100pcs per bag |
| Insulation Case | GT16G-SC | CL0766-0023-5-00 | PBT | Natural | 1,000pcs per bag |
| Retainer | GT5W-1P/S-R | CL0755-0028-5-00 | PBT / Silicone Rubber | Dark Gray / Light Blue | 100pcs per bag |

Note : Use two insulation cases per cable assembly.

● Center Terminal, Outer Terminal

| Part | Part No. | HRS No. | Material / Finish | Applicable Cable | Purchase Unit |
|-----------------|------------------|------------------|----------------------------------|-----------------------|-----------------------|
| Center Terminal | GT16G-2428SCF | CL0766-0022-2-00 | Phosphor Bronze / Tin Plating | 24 to 28 AWG | 10,000pcs per reel |
| Outer Terminal | GT16G-/1.6-2.9SC | CL0766-0024-8-00 | | 1.5D-2W equivalent | 100pcs per bag |

● Terminal Ferrule, Outer Ferrule

| Part | Part No. | HRS No. | Material / Finish | Purchase Unit |
|------------------|---------------|------------------|----------------------------------|------------------|
| Terminal Ferrule | GT16G-FR | CL0766-0028-9-00 | Phosphor Bronze / Tin Plating | 1,000pcs per bag |
| Outer Ferrule | GT16G-1.5DHQS | CL0766-0027-6-00 | | 500pcs per bag |

Waterproof In-line Jack

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

GT16GW-1P-ASSY



● Housing, Insulation Case, Retainer

| Part | Part No. | HRS No. | Material | Color | Purchase Unit |
|-----------------|--------------|------------------|-----------------------|------------------------|----------------|
| Housing | GT16GW-1P-HU | CL0766-0077-4-00 | PBT | Black | 100pcs per bag |
| Insulation Case | GT16G-PC | CL0766-0047-3-00 | | Natural | |
| Retainer | GT5W-1P/S-R | CL0755-0028-5-00 | PBT / Silicone Rubber | Dark Gray / Light Blue | |

Note : Use two insulation cases per cable assembly.

● Center Terminal, Outer Terminal

| Part | Part No. | HRS No. | Material / Finish | Applicable Cable | Purchase Unit |
|-----------------|------------------|------------------|-------------------------------|--------------------|--------------------|
| Center Terminal | GT16G-2428PCF | CL0766-0046-0-00 | Brass / Tin Plating | 24 to 28 AWG | 10,000pcs per reel |
| Outer Terminal | GT16G-/1.6-2.9PC | CL0766-0048-6-00 | Phosphor Bronze / Tin Plating | 1.5D-2W equivalent | 100pcs per bag |

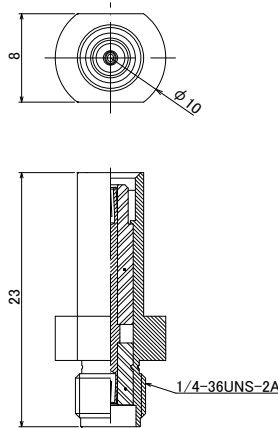
● Terminal Ferrule, Outer Ferrule

| Part | Part No. | HRS No. | Material / Finish | Purchase Unit |
|------------------|---------------|------------------|-------------------------------|------------------|
| Terminal Ferrule | GT16G-FR | CL0766-0028-9-00 | Phosphor Bronze / Tin Plating | 1,000pcs per bag |
| Outer Ferrule | GT16G-1.5DHQS | CL0766-0027-6-00 | | 500pcs per bag |

Conversion Adapter

SMA Conversion Adapter

(Mated Portion - SMA Side : Jack, GT16G Side : Plug)

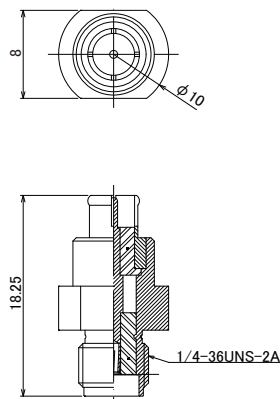


| Part No. | HRS No. | Purchase Unit |
|-------------|------------------|---------------|
| GT16GS-HRMJ | CL0766-0031-3-00 | 20pcs per bag |

Note : The adapter does not have a lock so it can only be used for performance measurements.

SMA Conversion Adapter

(Mated Portion - SMA Side : Jack, GT16G Side : Jack)



| Part No. | HRS No. | Purchase Unit |
|-------------|------------------|---------------|
| GT16GP-HRMJ | CL0766-0030-0-00 | 20pcs per bag |

Note : The adapter does not have a lock so it can only be used for performance measurements.

Crimping Tools

Please ask your Hirose Electric representative for a user manual.

| Applicable Connector | | GT16GM-1S-ASSY GT16G-1S-ASSY GT16GT-1S-ASSY GT16GW-1S-ASSY | GT16GM-1P-ASSY GT16GMN-1PP-ASSY GT16GT-1PP-ASSY GT16GW-1P-ASSY |
|----------------------|------------------------------------|--|--|
| Process 1 | Stripping the cable jacket | Schleuniger MP257, etc. | Schleuniger MP257, etc. |
| Process 2 | Center terminal crimping | Automatic Crimping Machine CM-105C + Applicator AP105-GT16G-2428S | Automatic Crimping Machine CM-105C + Applicator AP105-GT16G-2428P |
| Process 3 | Cable forming | Shield Forming Tool GT16G-1.5DHQS/CF-MD | Shield Forming Tool GT16G-1.5DHQS/CF-MD |
| Process 4 | Inserting the outer ferrule | Outer Ferrule Insertion Tool GT16G-1.5DHQS/PR-MD | Outer Ferrule Insertion Tool GT16G-1.5DHQS/PR-MD |
| Process 5 | Inserting the terminal ferrule | Terminal Ferrule Insertion Tool GT16G-FR/PR-MD | Terminal Ferrule Insertion Tool GT16G-FR/PR-MD |
| Process 6 | Attaching the insulation case | Manual work | Manual work |
| Process 7 | Inserting the outer terminal | Insulation Case Pushing Tool GT16G-SC/PR-MD | — |
| Process 8 | Caulking the outer terminal | Hand Press HOS-7 + Outer Terminal Caulking Tool GT16G-1.6-2.9S/CK-MP | Hand Press HOS-7 + Outer Terminal Caulking Tool GT16G-1.6-2.9P/CK-MP |
| Process 9 | Mounting the housing (retainer) | Manual work | Manual work |
| Process 10 | Inspection | Inspection of high frequency characteristics Inspection of continuity/withstanding voltage Visual inspection | Inspection of high frequency characteristics Inspection of continuity/withstanding voltage Visual inspection |

Note 1 : Different contact crimp heights are available for different cable types.

Please contact your Hirose Electric account representative for details.

Other cables will require different crimp height settings. Please note that this may take a few days.

Note 2 : When purchasing HRS equipment, please contact your Hirose Electric account representative to confirm that the cable that you plan to use for the applicable terminal has been evaluated.

Note 3 : The applicators and tools listed here may not be applicable depending on the specifications of the cable you use.

While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/ defense etc. Hirose must review before assurance of reliability can be given.

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<https://www.hirose.com>

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[GT16GR-1P-H\(55\)](#) [GT16GT-1P-H\(55\)](#) [GT16GM-1P-H\(55\)](#) [GT16GMP-1P-H\(55\)](#) [GT16GRL-1P-H\(55\)](#) [GT16GMP-1P-H\(56\)](#) [GT16GT-1P-H\(56\)](#) [GT16GD-1P-H\(55\)](#) [GT16GL-1P-H\(55\)D](#)